



STIC Search Report

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STIC Database Tracking Number: 102952

To: Deborah Davis
Location: CM1-7D16
Art Unit: 1641
Tuesday, September 09, 2003

Case Serial Number: 09/991809

From: Beverly Shears
Location: Biotech-Chem Library
CM1-1E05
Phone: 308-4994

beverly.shears@uspto.gov

Search Notes

102952 Access DB#
SEARCH REQUEST FORM

Scientific and Technical Information Center

CRFE

Requester's Full Name: Deborah A Davis Examiner #: 69897 Date: 9-3-03
 Art Unit: 1641 Phone Number 30 8-4427 Serial Number: 708-4427 09/99/809
 Mail Box and Bldg/Room Location: cm1, 7016 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Apolipoprotein biopolymer marker predictive of
type II diabetes
 Inventors (please provide full names): George Sackowski, John Marshall

Earliest Priority Filing Date: 11-23-2001

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

see attached

Please search seq ID I
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	Type of Search	Vendors and cost where applicable
Searcher: <u>Beverly e4994</u>	NA Sequence (#) _____	STN <input checked="" type="checkbox"/> _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>09-09-03</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>3</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>22</u>	Other _____	Other (specify) <u>CGN</u>

09/991809

L1 FILE 'REGISTRY' ENTERED AT 12:08:40 ON 09 SEP 2003
43 S KALVQQMEQLRQ/SQSP

L2 FILE 'HCAPLUS' ENTERED AT 12:09:29 ON 09 SEP 2003
9 S L1

L2 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:448587 HCAPLUS

Correction of: 2003:177120
DOCUMENT NUMBER: 139:18398

Correction of: 138:200022
TITLE: Differentially expressed nucleic acids and their
encoded proteins associated with pain and their
use in screening for regulatory agents

INVENTOR(S): Woolf, Clifford; D'Urso, Donatella; Befort,
Katia; Costigan, Michael

PATENT ASSIGNEE(S): The General Hospital Corporation, USA; Bayer AG
SOURCE: PCT Int. Appl., 1017 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003016475	A2	20030227	WO 2002-XA25765	20020814
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
WO 2003016475	A2	20030227	WO 2002-US25765	20020814
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.:
US 2001-312147P P 20010814
US 2001-346382P P 20011101
US 2001-333347P P 20011126
WO 2002-US25765 A 20020814

AB The present invention relates to human and rat nucleic acid sequences which are related to pain and which are differentially expressed during pain. The nucleic acids are differentially expressed by at least ± 1.4 -fold in any or all of the following

conditions using the Affymetrix human U95, murine U74 and rat U34 GeneChip arrays: axotomy, spared nerve injury, chronic constriction, spinal segmental nerve lesion, and inflammatory pain models. The invention further relates to methods of identifying nucleic acid sequences which are differentially expressed during pain, microarrays comprising such differentially expressed sequences, and methods of screening agents for the ability to regulate the expression of such differentially expressed sequences. [This abstr. record is one of seven records for this document necessitated by the large no. of index entries required to fully index the document and publication system constraints.]

IT 538434-40-1

RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amino acid sequence; differentially expressed nucleic acids and their encoded proteins assocd. with pain and their use in screening for regulatory agents)

L2 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:429472 HCAPLUS

DOCUMENT NUMBER: 137:29063

TITLE: Cloning and cDNA and deduced amino acid sequences of 32 human secreted proteins

INVENTOR(S): Ni, Jian; Baker, Kevin P.; Birse, Charles E.; Ebner, Reinhard; Fiscella, Michele; Komatsoulis, George A.; Lafleur, David W.; Moore, Paul A.; Olsen, Henrik S.; Rosen, Craig A.; Ruben, Steven M.; Soppet, Daniel R.; Young, Paul E.; Wei, Ping; Florence, Kimberly A.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 458 pp., Cont.-in-part of Appl. No. PCT/US00/36013.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002068319	A1	20020606	US 2001-800729	20010308
US 6605592	B2	20030812		
WO 2001021658	A1	20010329	WO 2000-US26013	20000922
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.:

US 1999-155709P P 19990924
WO 2000-US26013 A2 20000922

AB The present invention relates to 32 novel human secreted proteins and isolated nucleic acids contg. the coding regions of the genes

encoding such proteins. Tissue distribution, sequence homologies, and preferred epitope sites are provided for the secreted proteins, as well as chromosomal mapping of some of the genes. Also provided are vectors, host cells, antibodies, and recombinant methods for producing human secreted proteins in bacterial, insect, and mammalian cells. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating disorders related to these novel human secreted proteins. High-throughput screening assays are also provided for various putative activities of the secreted proteins.

IT **429969-68-6**

RL: PRP (Properties)

(unclaimed protein sequence; cloning and cDNA and deduced amino acid sequences of 32 human secreted proteins)

L2 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:228926 HCAPLUS

DOCUMENT NUMBER: 134:232738

TITLE: Cloning and cDNA and deduced amino acid sequences of 32 human secreted proteins

INVENTOR(S): Ni, Jian; Baker, Kevin P.; Birse, Charles E.; Ebner, Reinhard; Fiscella, Michele; Komatsoulis, George A.; Lafleur, David W.; Moore, Paul A.; Olsen, Henrik S.; Rosen, Craig A.; Ruben, Steven A.; Soppet, Daniel R.; Young, Paul E.; Wei, Ping; Florence, Kimberly A.

PATENT ASSIGNEE(S): Human Genome Sciences, Inc., USA

SOURCE: PCT Int. Appl., 878 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001021658	A1	20010329	WO 2000-US26013	20000922
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1218408	A1	20020703	EP 2000-965302	20000922
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL			
JP 2003511012	T2	20030325	JP 2001-525231	20000922
US 2002068319	A1	20020606	US 2001-800729	20010308
US 6605592	B2	20030812		
PRIORITY APPLN. INFO.:			US 1999-155709P P	19990924
			WO 2000-US26013 W	20000922

AB The present invention relates to 32 novel human secreted proteins and isolated nucleic acids contg. the coding regions of the genes encoding such proteins. Tissue distribution, sequence homologies,

and preferred epitope sites are provided for the secreted proteins, as well as chromosomal mapping of some of the genes. Also provided are vectors, host cells, antibodies, and recombinant methods for producing human secreted proteins in bacterial, insect, and mammalian cells. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating disorders related to these novel human secreted proteins. High-throughput screening assays are also provided for various putative activities of the secreted proteins.

IT 102305-81-7

RL: PRP (Properties)

(unclaimed protein sequence; cloning and cDNA and deduced amino acid sequences of 32 human secreted proteins)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1993:643750 HCAPLUS

DOCUMENT NUMBER: 119:243750

TITLE: Baboon apolipoprotein A-IV. Identification of Lys76 .fwdarw. Glu that distinguishes two common isoforms and detection of length polymorphisms at the carboxyl terminus

AUTHOR(S): Hixson, James E.; Kammerer, Candace M.; Mott, Glen E.; Britten, Marjorie L.; Birnbaum, Shifra; Powers, Patricia K.; VandeBerg, John L.

CORPORATE SOURCE: Dep. Genet., Southwest Found. Biomed. Res., San Antonio, TX, 78228-0147, USA

SOURCE: Journal of Biological Chemistry (1993), 268(21), 15667-73

CODEN: JBCHA3; ISSN: 0021-9258

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Various protein isoforms have been identified for human apolipoprotein A-IV (apoA-IV). However, investigations of their physiol. effects have been limited because of low frequencies for many of the apoA-IV variants. Recent discovery of extensive variation in baboon apoA-IV using isoelec. focusing (IEF) makes this primate species an excellent model for genetic studies of apoA-IV. In this study, the mol. basis for net charge differences between two common apoA-IV isoforms (I and E) was detd. by cloning and sequencing of intestinal cDNAs from homozygous baboons. As A .fwdarw. G substitution was found in the third amphipathic repeat of the E isoform. This substitution causes a Lys .fwdarw. Glu substitution at amino acid position 76 (Lys76 .fwdarw. Glu), adding two neg. charges to the E isoform compared to the I isoform, consistent with their relative mobilities on IEF gels. Restriction isotyping was used to identify the substitution in leukocyte DNA from 15 baboons that had been typed by IEF, thus verifying Lys76 .fwdarw. Glu as the basis for the charge differences between the I and E isoforms. Physiol. effects of the Lys76 .fwdarw. Glu substitution on high d. lipoprotein-C levels were investigated in 431 baboons carrying the E and I isoforms. These studies revealed that the I isoform was assocd. with higher levels of high d. lipoprotein-C on a high cholesterol, satd. fat diet (p = 0.04). The cDNA sequences showed that the carboxyl terminus of baboon apoA-IV contains a region of hydrophilic repeats (Glu-Gln-X-gln) that is the

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largest yet found in any species (nine repeats compared to three to five repeats in human, mouse, and rat). A common length polymorphism was identified that inserts a single amino acid to form a five amino acid repeat. This is the first report of this type of length variation (insertion of a single amino acid rather than insertion of an entire repeat) in this region. In addn., a rare variant was found that inserts an entire four-amino-acid repeat, similar to the human apoA-IV-O isoform.

IT 151086-88-3 151086-89-4

RL: PRP (Properties)

(amino acid sequence of, high-d. lipoprotein C serum level in relation to)

L2 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1993:620056 HCAPLUS

DOCUMENT NUMBER: 119:220056

TITLE: Polypeptides derived from human A-IV apolipoprotein, preparation with recombinant cells, and use as antithrombotics and anticholesteremics

INVENTOR(S): Denefle, Patrice; Guinet, Francoise; Latta, Martine; Murry-Brelier, Anne

PATENT ASSIGNEE(S): Rhone-Poulenc Rorer S.A., Fr.

SOURCE: PCT Int. Appl., 46 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9315198	A1	19930805	WO 1993-FR73	19930126
W: CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
FR 2686605	A1	19930730	FR 1992-806	19920127
FR 2686605	B1	19940311		
EP 624194	A1	19941117	EP 1993-904117	19930126
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
JP 07503367	T2	19950413	JP 1993-512981	19930126
PRIORITY APPLN. INFO.:			FR 1992-806	19920127
			WO 1993-FR73	19930126

AB Derivs. of human apolipoprotein A-IV comprising that protein encoded by all exons except the 1st two modified by substitution, terminal deletion, deletion of 1 or 2 helices, and/or fusion to an heterologous protein are described. These proteins may be prepd. with recombinant cells and used to treat hypercholesterolemia or as antithrombotics. Many human apolipoprotein A-IV derivs. were prepd. with recombinant E. coli and tested for HDL receptor binding and for alteration of cholesterol efflux from murine adipocytes.

IT 150826-93-0P 150826-94-1P, 13-376-Lipoprotein A-IV (human clone .lambda.AIV-2) 150826-95-2P
150826-96-3P 150826-97-4P 150826-98-5P
150827-00-2P, 182-376-Lipoprotein A-IV (human clone .lambda.AIV-2) 150827-01-3P 150827-02-4P
150827-03-5P 150827-04-6P 150827-05-7P

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150827-06-8P 150827-07-9P 150827-08-0P
150827-09-1P 150827-12-6P 150827-13-7P
150827-14-8P 150827-15-9P 150827-16-0P
150827-17-1P 150827-18-2P 150827-19-3P
150827-20-6P

RL: BAC (Biological activity or effector, except adverse); BMF (Bioindustrial manufacture); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(manuf. with recombinant cells of, use as antithrombotics and anticholesteremics of)

IT 150826-91-8D, analogs and fusion products

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(manuf. with recombinant cells of, use as antithrombotics and anticholesteremics of)

L2 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1993:421874 HCAPLUS

DOCUMENT NUMBER: 119:21874

TITLE: Nucleotide sequences of the *Macaca fascicularis* apolipoprotein C-III and A-IV genes

AUTHOR(S): Osada, Jesus; Pocovi, Miguel; Nicolosi, Robert J.; Schaefer, Ernst J.; Ordovas, Jose Maria

CORPORATE SOURCE: Lipid Metab. Lab., U.S.D.A., Hum. Nutr. Cent. on Aging at Tufts Univ., Boston, MA, USA

SOURCE: Biochimica et Biophysica Acta (1993), 1172(3), 335-9

CODEN: BBACAQ; ISSN: 0006-3002

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The cynomolgus monkey (*Macaca fascicularis*) apolipoprotein C-III and apolipoprotein A-IV genes have been isolated from a cynomolgus genomic DNA library and completely sequenced. These genes span 3.1 and 2.8 kilobases (kb), resp. Apolipoprotein C-III gene is interrupted by three intervening sequences of 613, 135 and 1699 bp, resp. The open reading frame encodes a protein of 99 amino acids which is 87% similar to the human. The cynomolgus mature protein is 79 residues long. Thr-74 is also present and might allow the formation of the O-glycosidic linkage obsd. in the human protein. The apolipoprotein A-IV gene consists of two intervening sequences of 352 and 774 bp, resp.. The open reading frame encodes a protein of 429 amino acids which is 87% similar to the human. The cynomolgus mature protein is 409 residues long, 33 amino acids longer than the human, due to an insertion of 33 residues in its COOH-terminal region. This insertion is mainly composed of glutamine and glutamic acid, which confers cynomolgus apolipoprotein a higher hydrophilicity.

IT 148242-00-6, Preapolipoprotein A-IV (*Macaca fascicularis* clone EMBL3A-IV5)

RL: PRP (Properties)

(amino acid sequence of)

L2 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1989:627408 HCAPLUS

DOCUMENT NUMBER: 111:227408

TITLE: The primary structure of human apolipoprotein A-IV

AUTHOR(S): Yang, Chao Yuh; Gu, Zi Wei; Chong, Ilsong;
Xiong, Weijun; Rosseneu, Maryvonne; Yang, Hui
Xin; Lee, Bo Rong; Gotto, Antonio M., Jr.; Chan,
Lawrence

CORPORATE SOURCE: Dep. Med., Baylor Coll. Med., Houston, TX,
77030, USA

SOURCE: Biochimica et Biophysica Acta (1989), 1002(2),
231-7
CODEN: BBACAQ; ISSN: 0006-3002

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Human apolipoprotein (apo) A-IV was purified from chylous ascites
fluid. Proteolytic peptides produced by trypsin and Staphylococcus
aureus V8 proteinase digestions were purified by HPLC and sequenced.
Human apoA-IV contains 376 amino acid residues. The peptide-derived
sequence generally matches 2 previously reported DNA-derived amino
acid sequences except for discrepancies in 5 positions. In order to
examine these discrepancies further, 1 complete apoA-IV cDNA clone
and another partial clone were sequenced. The peptide-derived
sequence is accurate. Sequencing errors probably account for some
of the discrepancies between the 2 primary sequences predicted by
earlier nucleotide analyses. In certain positions, however,
sequence heterogeneity or cloning artifact cannot be excluded.

IT **123781-21-5**, Lipoprotein A-IV (human clone .lambda.AIV-1
protein moiety) **123781-22-6**, Lipoprotein A-IV (human clone
.lambda.AIV-2 protein moiety) **123781-23-7**
RL: PRP (Properties)
(amino acid sequence of)

L2 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1987:62019 HCAPLUS

DOCUMENT NUMBER: 106:62019

TITLE: Structure, evolution, and polymorphisms of the
human apolipoprotein A4 gene (APOA4)

AUTHOR(S): Karathanasis, Sotirios K.; Oettgen, Peter;
Haddad, Issam A.; Antonarakis, Stylianos E.

CORPORATE SOURCE: Dep. Cardiol., Child. Hosp., Boston, MA, 02115,
USA

SOURCE: Proceedings of the National Academy of Sciences
of the United States of America (1986), 83(22),
8457-61
CODEN: PNASA6; ISSN: 0027-8424

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The genes coding for 3 proteins of the plasma lipid transport
system, apolipoproteins A1 (APOA1), C3 (APOC3), and A4 (APOA4), are
closely linked and tandemly organized on the long arm of human
chromosome 11. The human APOA4 gene was isolated and characterized.
In contrast to APOA1 and APOC3 genes, which contain 3 introns, the
APOA4 gene contains only 2. An intron interrupting the 5' noncoding
region of the APOA1 and APOC3 mRNAs is absent from the corresponding
position of the APOA4 mRNA. However, similar to APOA1 and APOC3
genes, the introns of the APOA4 gene sep. nucleotide sequences
coding for the signal peptide and the amphipathic domains in APOA4.
These results suggest that the APOA1, APOC3, and APOA4 genes were
derived from a common evolutionary ancestor and indicate that during
evolution the APOA4 gene lost one of its ancestral introns. Two
restriction endonuclease sites, an XbaI located in the 2nd intron of

the APOA4 gene and a different XbaI located 9 kilobases 3' to the APOA4 gene, are polymorphic in Mediterranean and Northern European populations. Haplotype anal. indicated that even though these polymorphic sites are located within 9 kilobases they do not display significant nonrandom assocn. Finally, restriction mapping anal. of DNA from a patient with combined APOA1-APOC3 deficiency and premature coronary artery disease indicated that this patient has a structurally normal APOA4 gene.

IT 102305-80-6 102305-81-7
 RL: PRP (Properties)
 (amino acid sequence of)

L2 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1986:419642 HCAPLUS

DOCUMENT NUMBER: 105:19642

TITLE: Structure, evolution, and tissue-specific synthesis of human apolipoprotein AIV

AUTHOR(S): Karathanasis, Sotirios K.; Yunis, Ivan; Zannis, Vassilis I.

CORPORATE SOURCE: Harvard Med. Sch., Child. Hosp., Boston, MA, 02115, USA

SOURCE: Biochemistry (1986), 25(13), 3962-70

CODEN: BICHAW; ISSN: 0006-2960

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Apolipoprotein AIV (apoAIV) is a protein of the lipid transport system found assocd. with chylomicrons, high-d. lipoprotein (HDL), and the lipoprotein-free fraction of the plasma. The gene coding for the human apoAIV is closely linked with the genes coding for apolipoprotein AI (apoAI) and CIII (apoCIII). A nearly full-length apoAIV cDNA clone was isolated by screening an adult human liver library with a human apoAIV gene probe. In-frame translation of the cDNA sequence in this clone indicated that the human apoAIV consists of 396 amino acid residues, including a 20-residue-long signal peptide. In addn., the coding region of this cDNA sequence contains 15 66-base-pair (bp) repeats, 11 of which code for amino acid repeats with potentials of forming amphipathic helices. Alignment and comparison of the human and rat apoAIV amino acid sequences indicated a 5-residue deletion near the C-terminus of the rat protein. This comparison also indicated that these proteins are 61.8% homologous, suggesting that the rate of evolution of apoAIV is 65 accepted point mutations (PAMs)/100 residues/100 million years. The rates of evolution of certain amino acid repeats in apoAIV are higher than the rate of evolution of the entire protein. However, the corresponding, computer-generated, secondary structures and hydropathy profiles of these repeats are very similar between the human and rat apoAIV. The relative steady-state levels of apoAIV mRNA in various human and monkey tissues were detd. by hybridization blotting anal. of total RNA, from these tissues, with a human apoAIV cDNA probe. This anal. showed that only fetal and adult intestine and pancreas as well as adult but not fetal liver contain detectable amts. of apoAIV mRNA. These results indicate that the apoAIV gene evolved by amplification of an ancestral 66-bp sequence coding for a peptide with amphipathic properties and that conservation of the secondary structure and hydropathic properties of certain domains in apoAIV may be significant for the function(s) of this protein. Furthermore, these results indicate that in humans and nonhuman primates, apoAIV mRNA synthesis occurs primarily in intestine and,

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to a lesser extent, in pancreas, whereas in liver apoAIV mRNA synthesis may be regulated by developmental and(or) nutritional factors.

IT 102305-80-6 102305-81-7
RL: PRP (Properties)
(amino acid sequence of)

E1 THROUGH E36 ASSIGNED

FILE 'REGISTRY' ENTERED AT 12:10:03 ON 09 SEP 2003

L3 36 SEA FILE=REGISTRY ABB=ON PLU=ON (102305-81-7/BI OR
102305-80-6/BI OR 123781-21-5/BI OR 123781-22-6/BI OR
123781-23-7/BI OR 148242-00-6/BI OR 150826-91-8/BI OR
150826-93-0/BI OR 150826-94-1/BI OR 150826-95-2/BI OR
150826-96-3/BI OR 150826-97-4/BI OR 150826-98-5/BI OR
150827-00-2/BI OR 150827-01-3/BI OR 150827-02-4/BI OR
150827-03-5/BI OR 150827-04-6/BI OR 150827-05-7/BI OR
150827-06-8/BI OR 150827-07-9/BI OR 150827-08-0/BI OR
150827-09-1/BI OR 150827-12-6/BI OR 150827-13-7/BI OR
150827-14-8/BI OR 150827-15-9/BI OR 150827-16-0/BI OR
150827-17-1/BI OR 150827-18-2/BI OR 150827-19-3/BI OR
150827-20-6/BI OR 151086-88-3/BI OR 151086-89-4/BI OR
429969-68-6/BI OR 538434-40-1/BI)

L4 36 L1 AND L3

L4 ANSWER 1 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 538434-40-1 REGISTRY
CN INDEX NAME NOT YET ASSIGNED
CI MAN
SQL 396

SEQ 1 MFLKAVVLT ALVAVAGARA EVSADQVATV MWDYFSQLSN NAKEAVEHLQ
51 KSELTQQLNA LFQDKLGEVN TYAGDLQKKL VPFATELHER LAKDSEKLKE
101 EIGKELEELR ARLLPHANEV SQKIGDNLRE LQQRLEPYAD QLRTQVNTQA
151 EQLRRQLTPY AQRMERVLRE NADSLQASLR PHADELKAKI DQNVEELKGR
201 LTPYADEFKV KIDQTVEELR RSLAPYAQDT QEKLNHQLEG LTFQMKNNAE
251 ELKARISASA EELRQRLAPL AEDVRGNLKG NTEGLQKSLA ELGGHLDQQV
301 EEFRRRVEPY GENFNKALVQ QMEQLRQKLG PHAGDVEGHL SFLEKDLRDK
=====

351 VNSFFSTFKE KESQDKTSL PELEQQQEQQ QEQQQEQVQM LAPLES
HITS AT: 316-327

REFERENCE 1: 139:18398

L4 ANSWER 2 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 429969-68-6 REGISTRY
CN 208: PN: US20020068319 SEQID: 207 unclaimed protein (9CI) (CA INDEX
NAME)
CI MAN
SQL 396

SEQ 1 MFLKAVVLT ALVAVAGARA EVSADQVATV MWDYFSQLSN NAKEAVEHLQ
51 KSELTQQLNA LFQDKLGEVN TYAGDLQKKL VPFATELHER LAKDSEKLKE
101 EIGKELEELR ARLLPHANEV SQKIGDNLRE LQQRLEPYAD QLRTQVNTQA
151 EQLRRQLDPL AQRMERVLRE NADSLQASLR PHADELKAKI DQNVEELKGR
201 LTPYADEFKV KIDQTVEELR RSLAPYAQDT QEKLNHQLEG LTFQMKNNAE
251 ELKARISASA EELRQRLAPL AEDVRGNLKG NTEGLQKSLA ELGGHLDQQV

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301 EEFRRRVEPY GENFNKALVQ QMEQLRQKLG PHAGDVEGHL SFLEKDLRDK

=====

351 VNSFFSTFKE KESQDKTSL PELEQQQEQQ EQQQQEQVQM LAPLES
HITS AT: 316-327

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 137:29063

L4 ANSWER 3 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 151086-89-4 REGISTRY
CN Lipoprotein A-IV (Papio anubis clone .lambda.apoAIV-E isoform E
precursor C-terminal fragment) (9CI) (CA INDEX NAME)
CI MAN
SQL 401

SEQ 1 GARAEVSADQ VATVMWDYFS QLSSNAKEAV EHLQKSELTQ QLNALFQDKL
51 GEVNTYAGDL QKKLVPFATE LHERLAKDSE KLKEEIRKEL EEVRARLLPH
101 ANEVSKIGE NVRELQQRLE PYTDQLRTQV NTQTEQLRRQ LTPYAQRMER
151 VLRENADSLQ TSLRPHADQL KAKIDQNVVEE LKGRLLTPYAD EFKVKIDQTV
201 EELRRSLAPY AQDAQEKLNH QLEGLAFQMK KNAEELKARI SASAEELRQR
251 LAPLAEDMRG NLRGNTEGLQ KSLAELGGHL DRHVEEFRLR VEPYGENFNK
=

301 ALVQQMEQLR QKLGPAGDV EGHLSFLEKD LRDKVNSFFS TFKEKESQDN
=====

351 TLSPPEPEQQ EQQQEQEQEQ EQQQEQEQEQ EQQQEQEQEQ EQVQMLAPLE
401 S

HITS AT: 300-311

REFERENCE 1: 119:243750

L4 ANSWER 4 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 151086-88-3 REGISTRY
CN Lipoprotein A-IV (Papio anubis clone .lambda.apoAIV-I isoform I
precursor C-terminal fragment) (9CI) (CA INDEX NAME)
CI MAN
SQL 401

SEQ 1 GARAEVSADQ VATVMWDYFS QLSSNAKEAV EHLQKSELTQ QLNALFQDKL
51 GEVNTYAGDL QKKLVPFATE LHERLAKDSK KLKEEIRKEL EEVRARLLPH
101 ANEVSKIGE NVRELQQRLE PYTDQLRTQV NTQTEQLRRQ LTPYAQRMER
151 VLRENADSLQ TSLRPHADQL KAKIDQNVVEE LKGRLLTPYAD EFKVKIDQTV
201 EELRRSLAPY AQDAQEKLNH QLEGLAFQMK KNAEELKARI SASAEELRQR
251 LAPLAEDMRG NLRGNTEGLQ KSLAELGGHL DRHVEEFRLR VEPYGENFNK
=

301 ALVQQMEQLR QKLGPAGDV EGHLSFLEKD LRDKVNSFFS TFKEKESQDN
=====

351 TLSPPEPEQQ EQQQEQEQEQ EQQQEQEQEQ EQQQEQEQEQ EQVQMLAPLE
401 S

HITS AT: 300-311

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 119:243750

L4 ANSWER 5 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-20-6 REGISTRY
CN Lipoprotein A-IV (human clone .lambda.AIV-2), N-L-methionyl-230-L-

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lysine- (9CI) (CA INDEX NAME)
CI MAN
SQL 377

SEQ 1 MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELTQQLN ALFQDKLGEV
51 NTYAGDLQKK LVPFATELHE RLAkdSEKLK EEIGKELEEL RARLLPHANE
101 VSQKIGDNLr ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP YAQRMERVLr
151 ENADSLQASL RPHADELKAK IDQNVeELKG RLTPYADEFK VKIDQTVEEL
201 RRSLAPYAQD TQEKLNHQLE GLTFQMKKNA KELKARISAS AEELRQRLAP
251 LAEDVRGNLR GNTEGLQKSL AELGGHLDQQ VEEFRRRVEP YGENFNKALV
=====

301 QQMEQLRQKL GPHAGDVEGH LSFLEKDLRD KVNSFFSTFK EKESQDKTLS
=====

351 LPELEQQQEQ QQEQQQEQVQ MLAPLES

HITS AT: 297-308

REFERENCE 1: 119:220056

L4 ANSWER 6 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-19-3 REGISTRY
CN Lipoprotein A-IV (human clone .lambda.AIV-2), N-L-methionyl-178-L-
alanine- (9CI) (CA INDEX NAME)
CI MAN
SQL 377

SEQ 1 MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELTQQLN ALFQDKLGEV
51 NTYAGDLQKK LVPFATELHE RLAkdSEKLK EEIGKELEEL RARLLPHANE
101 VSQKIGDNLr ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP YAQRMERVLr
151 ENADSLQASL RPHADELKAK IDQNVeELAG RLTPYADEFK VKIDQTVEEL
201 RRSLAPYAQD TQEKLNHQLE GLTFQMKKNA EELKARISAS AEELRQRLAP
251 LAEDVRGNLR GNTEGLQKSL AELGGHLDQQ VEEFRRRVEP YGENFNKALV
=====

301 QQMEQLRQKL GPHAGDVEGH LSFLEKDLRD KVNSFFSTFK EKESQDKTLS
=====

351 LPELEQQQEQ QQEQQQEQVQ MLAPLES

HITS AT: 297-308

REFERENCE 1: 119:220056

L4 ANSWER 7 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-18-2 REGISTRY
CN Lipoprotein A-IV (human clone .lambda.AIV-2), N-L-methionyl-178-L-
tyrosine- (9CI) (CA INDEX NAME)
CI MAN
SQL 377

SEQ 1 MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELTQQLN ALFQDKLGEV
51 NTYAGDLQKK LVPFATELHE RLAkdSEKLK EEIGKELEEL RARLLPHANE
101 VSQKIGDNLr ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP YAQRMERVLr
151 ENADSLQASL RPHADELKAK IDQNVeELYG RLTPYADEFK VKIDQTVEEL
201 RRSLAPYAQD TQEKLNHQLE GLTFQMKKNA EELKARISAS AEELRQRLAP
251 LAEDVRGNLR GNTEGLQKSL AELGGHLDQQ VEEFRRRVEP YGENFNKALV
=====

301 QQMEQLRQKL GPHAGDVEGH LSFLEKDLRD KVNSFFSTFK EKESQDKTLS
=====

351 LPELEQQQEQ QQEQQQEQVQ MLAPLES

HITS AT: 297-308

09/991809

REFERENCE 1: 119:220056

L4 ANSWER 8 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-17-1 REGISTRY
CN Lipoprotein A-IV (human clone .lambda.AIV-2), N-L-methionyl-5-L-lysine- (9CI) (CA INDEX NAME)
CI MAN
SQL 377

SEQ 1 MEVSAKQVAT VMWDYFSQLS NNAKEAVEHL QKSELTOQLN ALFQDKLGEV
51 NTYAGDLQKK LVPFATELHE RLAkdSEKLK EEIGKELEEL RARLLPHANE
101 VSQKIGDNLRL ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP YAQRMERVLR
151 ENADSLQASL RPHADELKAK IDQNVEELKG RLTPYADEFK VKIDQTVEEL
201 RRSLAPYAQD TQEKLNHQLE GLTFQMKKNA EELKARISAS AEELRQRLAP
251 LAEDVRGNLR GNTEGLQKSL AELGGHLDQQ VEEFRRRVEP YGENFNKALV
=====

301 QQMEQLRQKL GPHAGDVEGH LSFLEKDLRD KVNSFFSTFK EKESQDKTLS
=====

351 LPELEQQQEQ QQEQQQEQVQ MLAPLES
HITS AT: 297-308

REFERENCE 1: 119:220056

L4 ANSWER 9 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-16-0 REGISTRY
CN Lipoprotein A-IV (human clone .lambda.AIV-2), N-L-methionyl-5-L-serine- (9CI) (CA INDEX NAME)
CI MAN
SQL 377

SEQ 1 MEVSASQVAT VMWDYFSQLS NNAKEAVEHL QKSELTOQLN ALFQDKLGEV
51 NTYAGDLQKK LVPFATELHE RLAkdSEKLK EEIGKELEEL RARLLPHANE
101 VSQKIGDNLRL ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP YAQRMERVLR
151 ENADSLQASL RPHADELKAK IDQNVEELKG RLTPYADEFK VKIDQTVEEL
201 RRSLAPYAQD TQEKLNHQLE GLTFQMKKNA EELKARISAS AEELRQRLAP
251 LAEDVRGNLR GNTEGLQKSL AELGGHLDQQ VEEFRRRVEP YGENFNKALV
=====

301 QQMEQLRQKL GPHAGDVEGH LSFLEKDLRD KVNSFFSTFK EKESQDKTLS
=====

351 LPELEQQQEQ QQEQQQEQVQ MLAPLES
HITS AT: 297-308

REFERENCE 1: 119:220056

L4 ANSWER 10 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-15-9 REGISTRY
CN Lipoprotein A-IV (human clone .lambda.AIV-2), N-L-methionyl-44-L-alanine- (9CI) (CA INDEX NAME)
CI MAN
SQL 377

SEQ 1 MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELTOQLN ALFQAKLGEV
51 NTYAGDLQKK LVPFATELHE RLAkdSEKLK EEIGKELEEL RARLLPHANE
101 VSQKIGDNLRL ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP YAQRMERVLR
151 ENADSLQASL RPHADELKAK IDQNVEELKG RLTPYADEFK VKIDQTVEEL
201 RRSLAPYAQD TQEKLNHQLE GLTFQMKKNA EELKARISAS AEELRQRLAP
251 LAEDVRGNLR GNTEGLQKSL AELGGHLDQQ VEEFRRRVEP YGENFNKALV
=====

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301 QQMEQLRQKL GPHAGDVEGH LSFLEKDLRD KVNSFFSTFK EKESQDKTLS
=====

351 LPELEQQQEQ QQQQQQEQVQ MLAPLES
HITS AT: 297-308

REFERENCE 1: 119:220056

L4 ANSWER 11 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-14-8 REGISTRY
CN Lipoprotein A-IV (human clone .lambda.AIV-2), N-L-methionyl-44-L-phenylalanine- (9CI) (CA INDEX NAME)
CI MAN
SQL 377

SEQ 1 MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELTOQLN ALFQFKLGEV
51 NTYAGDLQKK LVPFATELHE RLAkdSEKLK EEIGKELEEL RARLLPHANE
101 VSQKIGDNLRL ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP YAQRMERVLR
151 ENADSLQASL RPHADELKAK IDQNVEELKG RLTPYADEFK VKIDQTVEEL
201 RRSLAPYAQD TQEKLNHQLE GLTFQMKKNA EELKARISAS AEELRQRLAP
251 LAEDVRGNLR GNTEGLQKSL AELGGHLDQQ VEEFRRRVEP YGENFNKALV
=====

301 QQMEQLRQKL GPHAGDVEGH LSFLEKDLRD KVNSFFSTFK EKESQDKTLS
=====

351 LPELEQQQEQ QQQQQQEQVQ MLAPLES
HITS AT: 297-308

REFERENCE 1: 119:220056

L4 ANSWER 12 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-13-7 REGISTRY
CN (1-116)-(161-376)-Lipoprotein A-IV (human clone .lambda.AIV-2), N-(L-methionyl-L-arginylglycyl-L-seryl-L-histidyl-L-histidyl-L-histidyl-L-histidyl-L-histidyl-L-methionyl)- (9CI) (CA INDEX NAME)
CI MAN
SQL 343

SEQ 1 MRGSHHHHHH MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELTOQLN
51 ALFQDKLGEV NTYAGDLQKK LVPFATELHE RLAkdSEKLK EEIGKELEEL
101 RARLLPHANE VSQKIGDNLRL ELQQRLEPHA DELKAKIDQN VEELKGRLTP
151 YADEFKVKID QTVEELRRSL APYAQDTQEK LNHQLEGLTF QMKKNAEELK
201 ARISASAEEL RQRLAPLAED VRGNLRGNTE GLQKSLAELG GHLDQQVEEF
251 RRRVEPYGEN FNKALVQQME QLRQKLGPHA GDVEGHLSFL EKDLRDKVNS
=====

301 FFSTFKEKES QDKTSLPEL EQQQEQQEQ QQQEQVQMLAP LES
HITS AT: 263-274

REFERENCE 1: 119:220056

L4 ANSWER 13 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-12-6 REGISTRY
CN (1-116)-(161-376)-Lipoprotein A-IV (human clone .lambda.AIV-2), N-L-methionyl- (9CI) (CA INDEX NAME)
CI MAN
SQL 333

SEQ 1 MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELTOQLN ALFQDKLGEV
51 NTYAGDLQKK LVPFATELHE RLAkdSEKLK EEIGKELEEL RARLLPHANE

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101 VSQKIGDNLRL ELQQRLEPHA DELKAKIDQN VEELKGRLTP YADEFKVKID
151 QTVEELRRSL APYAQDTQEK LNHQLEGLTF QMKKNAEELK ARISASAEEL
201 RQRLAPLAED VRGNLRGNTG GLQKSLAELG GHLDQQVEEF RRRVEPYGEN
251 FNKALVQQME QLRQKLGPFA GDVEGHL SFL EKDLRDKVNS FFSTFKEKES
=====

301 QDKTSLPEL EQQQEQQQEQ QQQEQVQMLAP LES

HITS AT: 253-264

REFERENCE 1: 119:220056

L4 ANSWER 14 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN

RN 150827-09-1 REGISTRY

CN (1-248)-(289-376)-Lipoprotein A-IV (human clone .lambda.AIV-2),
N-L-methionyl-86-L-methionine- (9CI) (CA INDEX NAME)

CI MAN

SQL 337

SEQ 1 MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELTQQLN ALFQDKLGEV
51 NTYAGDLQKK LVPFATELHE RLAKESEKLE EEIGKEMEEL RARLLPHANE
101 VSQKIGDNLRL ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP YAQRMERVLR
151 ENADSLQASL RPHADELKAK IDQNV EELKG RLTPYADEFK VKIDQTVEEL
201 RRS LAPYAQD TQEKLNHQLE GLTFQMKKNA EELKARISAS AEELRQRLAP
251 YGENFNKALV QQMEQLRQKL GPHAGDVEGH LSFLEKDLRD KVNSFFSTFK
=====

301 EKESQDKTSL LPELEQQQQEQ QQQEQQQEQVQ MLAPLES

HITS AT: 257-268

REFERENCE 1: 119:220056

L4 ANSWER 15 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN

RN 150827-08-0 REGISTRY

CN (1-248)-(289-376)-Lipoprotein A-IV (human clone .lambda.AIV-2),
N-(L-methionyl-L-arginylglycyl-L-seryl-L-histidyl-L-histidyl-L-
histidyl-L-histidyl-L-histidyl-L-histidyl-L-methionyl)- (9CI) (CA
INDEX NAME)

CI MAN

SQL 347

SEQ 1 MRGSHHHHHH MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELTQQLN
51 ALFQDKLGEV NTYAGDLQKK LVPFATELHE RLAKESEKLE EEIGKELEEL
101 RARLLPHANE VSQKIGDNLRL ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP
151 YAQRMERVLR ENADSLQASL RPHADELKAK IDQNV EELKG RLTPYADEFK
201 VKIDQTVEEL RRS LAPYAQD TQEKLNHQLE GLTFQMKKNA EELKARISAS
251 AEELRQRLAP YGENFNKALV QQMEQLRQKL GPHAGDVEGH LSFLEKDLRD
=====

301 KVNSFFSTFK EKESQDKTSL LPELEQQQQEQ QQQEQQQEQVQ MLAPLES

HITS AT: 267-278

REFERENCE 1: 119:220056

L4 ANSWER 16 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN

RN 150827-07-9 REGISTRY

CN (1-248)-(289-376)-Lipoprotein A-IV (human clone .lambda.AIV-2),
N-L-methionyl- (9CI) (CA INDEX NAME)

CI MAN

SQL 337

SEQ 1 MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELTQQLN ALFQDKLGEV

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51 NTYAGDLQKK LVPFATELHE RLAkdSEKLK EEIGKELEEL RARLLPHANE
101 VSQKIGDNLr ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP YAQRMERVLr
151 ENADSLQASL RPHADELKAK IDQNVEELKG RLTPYADEFK VKIDQTVEEL
201 RRSLAPYAQD TQEKLNHQLE GLTFQMKNNA EELKARISAS AEELRQRLAP
251 YGENFNKALV QQMEQLRQKL GPHAGDVEGH LSFLEKDLRD KVNSFFSTFK
=====

301 EKESQDKTSL LPELEQQQEQ QQEQQQEQVQ MLAPLES
HITS AT: 257-268

REFERENCE 1: 119:220056

L4 ANSWER 17 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-06-8 REGISTRY
CN (1-204)-(249-376)-Lipoprotein A-IV (human clone .lambda.AIV-2),
N-(L-methionyl-L-arginylglycyl-L-seryl-L-histidyl-L-histidyl-L-
histidyl-L-histidyl-L-histidyl-L-histidyl-L-methionyl)- (9CI) (CA
INDEX NAME)
CI MAN
SQL 343

SEQ 1 MRGSHHHHHH MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELtQQLN
51 ALFQDKLGEV NTYAGDLQKK LVPFATELHE RLAkdSEKLK EEIGKELEEL
101 RARLLPHANE VSQKIGDNLr ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP
151 YAQRMERVLr ENADSLQASL RPHADELKAK IDQNVEELKG RLTPYADEFK
201 VKIDQTVEEL RRSLAPLAED VRGNLRGNTe GLQKSLAELG GHLDQQVEEF
251 RRRVEPYGEN FNKALVQQME QLRQKLGPHA GDVEGHLSFL EKDLRDKVNS
=====

301 FFSTFKEKES QDKTSLPEL EQQQEQQQEQ QQEQVQMLAP LES
HITS AT: 263-274

REFERENCE 1: 119:220056

L4 ANSWER 18 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-05-7 REGISTRY
CN (1-204)-(249-376)-Lipoprotein A-IV (human clone .lambda.AIV-2),
N-L-methionyl- (9CI) (CA INDEX NAME)
CI MAN
SQL 333

SEQ 1 MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELtQQLN ALFQDKLGEV
51 NTYAGDLQKK LVPFATELHE RLAkdSEKLK EEIGKELEEL RARLLPHANE
101 VSQKIGDNLr ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP YAQRMERVLr
151 ENADSLQASL RPHADELKAK IDQNVEELKG RLTPYADEFK VKIDQTVEEL
201 RRSLAPLAED VRGNLRGNTe GLQKSLAELG GHLDQQVEEF RRRVEPYGEN
251 FNKALVQQME QLRQKLGPHA GDVEGHLSFL EKDLRDKVNS FFSTFKEKES
=====

301 QDKTSLPEL EQQQEQQQEQ QQEQVQMLAP LES
HITS AT: 253-264

REFERENCE 1: 119:220056

L4 ANSWER 19 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-04-6 REGISTRY
CN (1-160)-(205-376)-Lipoprotein A-IV (human clone .lambda.AIV-2),
N-(L-methionyl-L-arginylglycyl-L-seryl-L-histidyl-L-histidyl-L-
histidyl-L-histidyl-L-histidyl-L-histidyl-L-methionyl)- (9CI) (CA
INDEX NAME)
CI MAN

09/991809

SQL 343

SEQ 1 MRGSHHHHHH MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELTQQLN
51 ALFQDKLGEV NTYAGDLQKK LVPFATELHE RLAkdSEKLK EEIGKELEEL
101 RARLLPHANE VSQKIGDNL RPYAQRLEPYA DQLRTQVNTQ AEQLRRQLTP
151 YAQRMERVL R ENADSLQASL RPYAQDTQEK LNHQLEGLTF QMKKNAEELK
201 ARISASAEEL RQRLAPLAED VRGNLRGNT GLQKSLAELG GHLDQQVEEF
251 RRRVEPYGEN FNKALVQQME QLRQKLGPHA GDVEGHLSFL EKDLRDKVNS
=====

301 FFSTFKEKES QDKTSLPEL EQQQEQQQEQ QQQEQVQMLAP LES
HITS AT: 263-274

REFERENCE 1: 119:220056

L4 ANSWER 20 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-03-5 REGISTRY
CN (1-160)-(205-376)-Lipoprotein A-IV (human clone .lambda.AIV-2),
N-L-methionyl- (9CI) (CA INDEX NAME)
CI MAN
SQL 333

SEQ 1 MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELTQQLN ALFQDKLGEV
51 NTYAGDLQKK LVPFATELHE RLAkdSEKLK EEIGKELEEL RARLLPHANE
101 VSQKIGDNL RPYAQRLEPYA DQLRTQVNTQ AEQLRRQLTP YAQRMERVL
151 ENADSLQASL RPYAQDTQEK LNHQLEGLTF QMKKNAEELK ARISASAEEL
201 RQRLAPLAED VRGNLRGNT GLQKSLAELG GHLDQQVEEF RRRVEPYGEN
251 FNKALVQQME QLRQKLGPHA GDVEGHLSFL EKDLRDKVNS FFSTFKEKES
=====

301 QDKTSLPEL EQQQEQQQEQ QQQEQVQMLAP LES
HITS AT: 253-264

REFERENCE 1: 119:220056

L4 ANSWER 21 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-02-4 REGISTRY
CN (1-12)-(62-376)-Lipoprotein A-IV (human clone .lambda.AIV-2),
N-(L-methionyl-L-arginylglycyl-L-seryl-L-histidyl-L-histidyl-L-
histidyl-L-histidyl-L-histidyl-L-histidyl-L-methionyl)- (9CI) (CA
INDEX NAME)
CI MAN
SQL 338

SEQ 1 MRGSHHHHHH MEVSADQVAT VMWPFATELH ERLAKDSEKL KEEIGKELEE
51 LRARLLPHAN EVSQKIGDNL RELQQRLEPY ADQLRTQVNT QAEQLRRQLT
101 PYAQRMERVL RENADSLQAS LRPHADELKA KIDQNV EELK GRLTPYADEF
151 KVKIDQTVEE LRRSLAPYAQ DTQEKLNHQL EGLTFQMKKN AEELKARISA
201 SAEELRQRLA PLAEDVRGNL RGNTGGLQKS LAELGGHLDQ QVEEFRRRVE
251 PYGENFNKAL VQQMEQLRQK LGPHAGDVEG HLSFLEKDLR DKVNSFFSTF
=====

301 KEKESQDKTL SLPELEQQQE QQQEQQQEQV QMLAPLES
HITS AT: 258-269

REFERENCE 1: 119:220056

L4 ANSWER 22 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-01-3 REGISTRY
CN (1-12)-(62-376)-Lipoprotein A-IV (human clone .lambda.AIV-2),
N-L-methionyl- (9CI) (CA INDEX NAME)

09/991809

CI MAN
SQL 328

SEQ 1 MEVSADQVAT VMWPFATELH ERLAKDSEKL KEEIGKELEE LRARLLPHAN
51 EVSQKIGDNL RELQQRLEPY ADQLRTQVNT QAEQLRRQLT PYAQRMERVL
101 RENADSLQAS LRPHADELKA KIDQNVEELK GRLTPYADEF KVKIDQTVEE
151 LRRSLAPYAQ DTQEKLNHQL EGLTFQMKKN AEELKARISA SAEELRQRLA
201 PLAEDVRGNL RGNT EGLQKS LAELGGHLDQ QVEEFRRRVE PYGENFNKAL
=====

251 VQQMEQLRQK LGPHAGDVEG HLSFLEKDLR DKVNSFFSTF KEKESQDKTL
=====

301 SLPELEQQQE QQQEQQQEQV QMLAPLES

HITS AT: 248-259

REFERENCE 1: 119:220056

L4 ANSWER 23 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150827-00-2 REGISTRY
CN 182-376-Lipoprotein A-IV (human clone .lambda.AIV-2) (9CI) (CA
INDEX NAME)
CI MAN
SQL 195

SEQ 1 TPYADEFKVK IDQTVHEELR SLAPYAQDTQ EKLNHQLEGL TFQMKKNAAE
51 LKARISASAE ELRQRLAPLA EDVRGNLRGN TEGLQKSLAE LGGHLDQQVE
101 EFRRRVEPYG ENFNKALVQQ MEQLRQKLGP HAGDVEGHL S FLEKDLRDKV
=====

151 NSFFSTFKEK ESQDKTSLP ELEQQQQEQQ EQQQEQVQML APLES

HITS AT: 115-126

REFERENCE 1: 119:220056

L4 ANSWER 24 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150826-98-5 REGISTRY
CN 1-332-Lipoprotein A-IV (human clone .lambda.AIV-2), N-L-methionyl-
(9CI) (CA INDEX NAME)
CI MAN
SQL 333

SEQ 1 MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSEL TQQLN ALFQDKLGEV
51 NTYAGDLQKK LVPFATELHE RLAKDSEKLK EEIGKELEEL RARLLPHANE
101 VSQKIGDNL ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP YAQRMERVL R
151 ENADSLQASL RPHADELKAK IDQNVEELKG RLTPYADEFK VKIDQTVEE L
201 RRSLAPYAQD TQEKLNHQL GLTFQMKKNA EELKARISAS AEELRQRLAP
251 LAEDVRGNLR GNTEGLQKSL AELGGHLDQQ VEEFRRRVEP YGENFNKALV
=====

301 QQMEQLRQKL GPHAGDVEGH LSFLEKDLRD KVN
=====

HITS AT: 297-308

REFERENCE 1: 119:220056

L4 ANSWER 25 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150826-97-4 REGISTRY
CN 1-332-Lipoprotein A-IV (human clone .lambda.AIV-2),
N-(L-methionyl-L-arginylglycyl-L-seryl-L-histidyl-L-histidyl-L-
histidyl-L-histidyl-L-histidyl-L-histidyl-L-methionyl)- (9CI) (CA
INDEX NAME)

09/991809

CI MAN
SQL 343

SEQ 1 MRGSHHHHHH MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELTQQLN
51 ALFQDKLGEV NTYAGDLQKK LVPFATELHE RLAKESEKLK EEIGKELEEL
101 RARLLPHANE VSQKIGDNLRL ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP
151 YAQRMERVLR ENADSLQASL RPHADELKAK IDQNVEELKG RLTPYADEFK
201 VKIDQTVEEL RRS LAPYAQD TQEKLNHOLE GLTFQMKKNA EELKARISAS
251 AEELRQLAP LAEDVRGNLR GNTEGLQKSL AELGGHLDQQ VEEFRRRVEP
301 YGENFNKALV QQMEQLRQKL GPHAGDVEGH LSFLEKDLRD KVN
=====

HITS AT: 307-318

REFERENCE 1: 119:220056

L4 ANSWER 26 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150826-96-3 REGISTRY
CN Lipoprotein A-IV (human clone .lambda.AIV-2), N-L-methionyl-92-glycine- (9CI) (CA INDEX NAME)

CI MAN
SQL 377

SEQ 1 MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSELTQQLN ALFQDKLGEV
51 NTYAGDLQKK LVPFATELHE RLAKESEKLK EEIGKELEEL RAGLLPHANE
101 VSQKIGDNLRL ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP YAQRMERVLR
151 ENADSLQASL RPHADELKAK IDQNVEELKG RLTPYADEFK VKIDQTVEEL
201 RRS LAPYAQD TQEKLNHOLE GLTFQMKKNA EELKARISAS AEELRQLAP
251 LAEDVRGNLR GNTEGLQKSL AELGGHLDQQ VEEFRRRVEP YGENFNKALV
=====

301 QQMEQLRQKL GPHAGDVEGH LSFLEKDLRD KVNSFFSTFK EKESQDKTLS
=====

351 LPELEQQQEQ QQEQQQEQVQ MLAPLES
HITS AT: 297-308

REFERENCE 1: 119:220056

L4 ANSWER 27 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150826-95-2 REGISTRY
CN Lipoprotein A-IV (human clone .lambda.AIV-2), N-L-methionyl-1-L-arginine-2-glycine-4-L-histidine-5-L-histidine-6-L-histidine-7-L-histidine-8-L-histidine-9-L-histidine-10-de-L-valine-11-de-L-methionine-12-de-L-tryptophan- (9CI) (CA INDEX NAME)

CI MAN
SQL 374

SEQ 1 MRGSHHHHHH DYFSQLSNNA KEAVEHLQKS ELTQQLNALF QDKLGEVNTY
51 AGDLQKKLVP FATELHERLA KDSEKLKEEI GKELEELRAR LLPHANEVSQ
101 KIGDNLRELQ QRLEPYADQL RTQVNTQAEQ LRRQLTPYAQ RMERVLRENA
151 DSLQASLRPH ADELKAKIDQ NVEELKGRLT PYADEFKVKI DQTVEELRRS
201 LAPYAQDTQE KLNHOLEGLT FQMKKNAEEL KARISASAEEL LRQLAPLAE
251 DVRGNLRGNT EGLQKSLAEL GGHLDDQVVEE FRRRVEPYGE NFNKALVQQM
=====

301 EQLRQKLGP AGDVEGHLSF LEKDLRDKVN SFFSTFKEKE SQDKTSLPE
=====

351 LEQQQQEQQE QQEQVQMLA PLES
HITS AT: 294-305

REFERENCE 1: 119:220056

09/991809

L4 ANSWER 28 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150826-94-1 REGISTRY
CN 13-376-Lipoprotein A-IV (human clone .lambda.AIV-2) (9CI) (CA INDEX
NAME)
CI MAN
SQL 364

SEQ 1 DYFSQLSNN KEAVEHLQKS ELTQQLNALF QDKLGEVNTY AGDLQKKLVP
51 FATELHERLA KDSEKLKEEI GKELEELRAR LLPHANEVSQ KIGDNLRELQ
101 QRLEPYADQL RTQVNTQAEQ LRRQLTPYAQ RMERVLRENA DSLQASLRPH
151 ADELKAKIDQ NVEELKGRLT PYADEFKVKI DQTVEELRRS LAPYAQDTQE
201 KLNHQLEGLT FQMKKNAEEL KARISASAE LRQLAPLAE DVRGNLRGNT
251 EGLQKSLAEL GGHLDDQVEE FRRRVEPYGE NFNKALVQQM EQLRQKLGP
=====
301 AGDVEGHL SF LEKDLRDKVN SFFSTFKEKE SQDKTSLPE LEQQQEQQQE
351 QQEQVQMLA PLES
HITS AT: 284-295

REFERENCE 1: 119:220056

L4 ANSWER 29 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150826-93-0 REGISTRY
CN 13-376-Lipoprotein A-IV (human clone .lambda.AIV-2), 92-glycine-
(9CI) (CA INDEX NAME)
CI MAN
SQL 364

SEQ 1 DYFSQLSNN KEAVEHLQKS ELTQQLNALF QDKLGEVNTY AGDLQKKLVP
51 FATELHERLA KDSEKLKEEI GKELEELRAG LLPHANEVSQ KIGDNLRELQ
101 QRLEPYADQL RTQVNTQAEQ LRRQLTPYAQ RMERVLRENA DSLQASLRPH
151 ADELKAKIDQ NVEELKGRLT PYADEFKVKI DQTVEELRRS LAPYAQDTQE
201 KLNHQLEGLT FQMKKNAEEL KARISASAE LRQLAPLAE DVRGNLRGNT
251 EGLQKSLAEL GGHLDDQVEE FRRRVEPYGE NFNKALVQQM EQLRQKLGP
=====
301 AGDVEGHL SF LEKDLRDKVN SFFSTFKEKE SQDKTSLPE LEQQQEQQQE
351 QQEQVQMLA PLES
HITS AT: 284-295

REFERENCE 1: 119:220056

L4 ANSWER 30 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 150826-91-8 REGISTRY
CN Lipoprotein A-IV (human clone .lambda.AIV-2), N-L-methionyl- (9CI)
(CA INDEX NAME)
CI MAN
SQL 377

SEQ 1 MEVSADQVAT VMWDYFSQLS NNAKEAVEHL QKSEL TQQLN ALFQDKLGEV
51 NTYAGDLQKK LVPFATELHE RLAKDSEKLK EEIGKELEEL RARLLPHANE
101 VSQKIGDNL ELQQRLEPYA DQLRTQVNTQ AEQLRRQLTP YAQRMERVL
151 ENADSLQASL RPHADELKAK IDQNV EELKG RLTPYADEFK VKIDQTVEEL
201 RRSLAPYAQD TQEKLNHQLE GLTFQMKKNA EELKARISAS AEELRQLAP
251 LAEDVRGNLR GNTEGLQKSL AELGGHLDDQ VEEFRRRVEP YGENFNKALV
=====
301 QQMEQLRQKL GPHAGDVEGH LSFLEKDLRD KVNSFFSTFK EKESQDKTSL
=====
351 LPELEQQQEQ QQEQQQEQVQ MLAPLES

09/991809

HITS AT: 297-308

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 119:220056

L4 ANSWER 31 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 148242-00-6 REGISTRY
CN Lipoprotein A-IV, pre- (Macaca fascicularis clone EMBL3A-IV5) (9CI)
(CA INDEX NAME)

OTHER NAMES:

CN Preapolipoprotein A-IV (Macaca fascicularis clone EMBL3A-IV5)
CI MAN
SQL 429

SEQ 1 MFLKAVVLTALVAVTGARA EVSADQVATV MWDYFSQLSS NAKEAVEHLQ
51 KSELTQQLNALFQDKLGEVN TYAGDLQKKL VPFATELHER LAKDSEKLKE
101 EIRKELEEVRARLLPHANEV SQKIGENVRE LQQRLEPYTD QLRTQVNTQT
151 EQLRRQLTPYAQRMERVLRE NADSLQTSRL PHADQLKAKI DQNVEELKER
201 LTPYADEFEVKIDQTVEELR RSLAPYAQDA QEKLNHQLEG LAFQMKKNAE
251 ELKARISASAEELRQRLAPL AEDMRGNLRG NTEGLQKSLA ELGGHLDHRV
301 EEFRLRVEPY GENFNKALVQ QMEQLRQKLG PHAGDVEGHL SFLEKDLRDK
=====

351 VNSFFSTFKE KESQDNTLSL PEPEQQREQQ QEQQQEQQEQE QQQQQEQQQQ
401 QEQQREQQQQ EQQQEQQQEQ VQMLAPLES

HITS AT: 316-327

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 119:21874

L4 ANSWER 32 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 123781-23-7 REGISTRY
CN Lipoprotein A-IV, pre- (human clone .lambda.AIV-1 protein moiety)
(9CI) (CA INDEX NAME)

CI MAN
SQL 396

SEQ 1 MFLKAVVLTALVAVAGARA EVSADQVATV MWDYFSQLSN NAKEAVEHLQ
51 KSELTQQLNALFQDKLGEVN TYAGDLQKKL VPFATELHER LAKDSEKLKE
101 EIGKELEEVRARLLPHANEV SQKIGDNLRE LQQRLEPYAD QLRTQVNTQA
151 EQLRRQLTPYAQRMERVLRE NADSLQASLR PHADELKAKI DQNVEELKGR
201 LTPYADEFEVKIDQTVEELR RSLAPYAQDT QEKLNHQLEG LTFQMKKNAE
251 ELKARISASAEELRQRLAPL AEDVRGNLRG NTGGLQKSLA ELGGHLDQQV
301 EEFRRRVEPY GENFNKALVQ QMEQLRQKLG PHAGDVEGHL SFLEKDLRDK
=====

351 VNSFFSTFKE KESQDKSLSL PELEQQEQEQ QEQQQEQQVQM LAPLES

HITS AT: 316-327

REFERENCE 1: 111:227408

L4 ANSWER 33 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 123781-22-6 REGISTRY
CN Lipoprotein A-IV (human clone .lambda.AIV-2 protein moiety) (9CI)
(CA INDEX NAME)

CI MAN
SQL 376

09/991809

SEQ 1 EVSADQVATV MWDYFSQLSN NAKEAVEHLQ KSELTQQLNA LFQDKLGEVN
51 TYAGDLQKKL VPFATELHER LAKDSEKLKE EIGKELEELR ARLLPHANEV
101 SQKIGDNLRE LQQRLEPYAD QLRTQVNTQA EQLRRQLTPY AQRMERVLRE
151 NADSLQASLR PHADELKAKI DQNVEELKGR LTPYADEFKV KIDQTVEELR
201 RSLAPYAQDT QEKLNHQLEG LTFQMKNNAE ELKARISASA EELRQRLAPL
251 AEDVRGNLRG NTEGLQKSLA ELGGHLDQQV EEFRRRVEPY GENFNKALVQ
=====

301 QMEQLRQKLG PHAGDVEGHL SFLEKDLRDK VNSFFSTFKE KESQDKTSL
=====

351 PELEQQQEQQ QEQQQEQVQM LAPLES

HITS AT: 296-307

REFERENCE 1: 111:227408

L4 ANSWER 34 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 123781-21-5 REGISTRY
CN Lipoprotein A-IV (human clone .lambda.AIV-1 protein moiety) (9CI)
(CA INDEX NAME)
CI MAN
SQL 376

SEQ 1 EVSADQVATV MWDYFSQLSN NAKEAVEHLQ KSELTQQLNA LFQDKLGEVN
51 TYAGDLQKKL VPFATELHER LAKDSEKLKE EIGKELEELR ARLLPHANEV
101 SQKIGDNLRE LQQRLEPYAD QLRTQVNTQA EQLRRQLTPY AQRMERVLRE
151 NADSLQASLR PHADELKAKI DQNVEELKGR LTPYADEFKV KIDQTVEELR
201 RSLAPYAQDT QEKLNHQLEG LTFQMKNNAE ELKARISASA EELRQRLAPL
251 AEDVRGNLRG NTGGLQKSLA ELGGHLDQQV EEFRRRVEPY GENFNKALVQ
=====

301 QMEQLRQKLG PHAGDVEGHL SFLEKDLRDK VNSFFSTFKE KESQDKSLSL
=====

351 PELEQQQEQQ QEQQQEQVQM LAPLES

HITS AT: 296-307

REFERENCE 1: 111:227408

L4 ANSWER 35 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN
RN 102305-81-7 REGISTRY
CN Lipoprotein A-IV, pre- (human clone .lambda.gt10-3 protein moiety)
(9CI) (CA INDEX NAME)
OTHER NAMES:
CN 200: PN: WO0121658 SEQID: 207 unclaimed protein
CI MAN
SQL 396

SEQ 1 MFLKAVVLTALVAVAGARA EVSADQVATV MWDYFSQLSN NAKEAVEHLQ
51 KSELTQQLNA LFQDKLGEVN TYAGDLQKKL VPFATELHER LAKDSEKLKE
101 EIGKELEELR ARLLPHANEV SQKIGDNLRE LQQRLEPYAD QLRTQVNTQA
151 EQLRRQLDPL AQRMERVLRE NADSLQASLR PHADELKAKI DQNVEELKGR
201 LTPYADEFKV KIDQTVEELR RSLAPYAQDT QEKLNHQLEG LTFQMKNNAE
251 ELKARISASA EELRQRLAPL AEDVRGNLKG NTEGLQKSLA ELGGHLDQQV
301 EEFRRRVEPY GENFNKALVQ QMEQLRQKLG PHAGDVEGHL SFLEKDLRDK
=====

351 VNSFFSTFKE KESQDKTSL PELEQQQEQQ QEQQQEQVQM LAPLES

HITS AT: 316-327

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 134:232738

09/991809

REFERENCE 2: 106:62019

REFERENCE 3: 105:19642

L4 ANSWER 36 OF 36 REGISTRY COPYRIGHT 2003 ACS on STN

RN 102305-80-6 REGISTRY

CN Lipoprotein A-IV (human clone .lambda.gt10-3 protein moiety) (9CI)
(CA INDEX NAME)

CI MAN

SQL 376

SEQ 1 EVSADQVATV MWDYFSQLSN NAKEAVEHLQ KSELTQQLNA LFQDKLGEVN
51 TYAGDLQKKL VPFATELHER LAKDSEKLKE EIGKELEELR ARLLPHANEV
101 SQKIGDNLRE LQQRLEPYAD QLRTQVNTQA EQLRRQLDPL AQRMERVLRE
151 NADSLQASLR PHADELKAKI DQNV EELKGR LTPYADEFKV KIDQTVEELR
201 RSLAPYAQDT QEKLNHQLEG LTFQMKKNAE ELKARISASA EELRQRLAPL
251 AEDVRGNLKG NTEGLQKSLA ELGGHLDQQV EEFRRRVEPY GENFNKALVQ
=====

301 QMEQLRQKLG PHAGDVEGHL SFLEKDLRDK VNSFFSTFKE KESQDKTSL

=====

351 PELEQQQEQQ QEQQQEQVQM LAPLES

HITS AT: 296-307

REFERENCE 1: 106:62019

REFERENCE 2: 105:19642

FILE 'HOME' ENTERED AT 12:10:29 ON 09 SEP 2003